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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/749,980	12/27/2000	Elaine Lee	8600-0010	6822

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EXAMINER

BAXTER, JESSICA R

ART UNIT PAPER NUMBER

3731

DATE MAILED: 04/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/749,980

Applicant(s)

LEE, ELAINE

Examiner

Jessica R Baxter

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-11,14-16,19,21-24,31,32 and 34-37 is/are pending in the application.
- 4a) Of the above claim(s) 3-6,21,22,32 and 34-37 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,7-11,14-16,19,23,24 and 31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114.

Applicant's submission filed on January 13, 2005 has been entered.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 11, 14, 19 and 24 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S.

Patent No. 6,231,590 to Slaikeu et al.

Slaikeu discloses a vaso-occlusive composition consisting of a coil and a bioactive material that comprises a functional fragment of cytokine selected from the group consisting

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of PDGF, bFGF, VEGF and TGF-beta (Column 3 line 63-Column 4 line 5). Slaikeu discloses that the vaso-occlusive member is plasma treated (Column 3 lines 30-32).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Slaikeu et al. '590 U.S. Patent No. 5,891,192 to Murayama et al.

Slaikeu discloses the claimed invention except for the vaso-occlusive member being subjected to ion-implantation. Murayama teaches that ion implantation is used to alter the surface properties, such as thrombogenicity and endothelial cellular migration and adhesion, of the device (Column 3 lines 21-29). It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the device of Slaikeu with ion-implantation in order to alter the thrombogenicity and endothelial cellular migration and adhesion.

6. Claims 1, 7, 8, 9, 10, 23 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,690,666 to Berenstein et al. in view of U.S. Patent No. 4,414,976 to Schwarz et al.

Berenstein discloses a vaso-occlusive coil that is used with a tissue adhesive (Column 3 lines 14-24). Schwarz teaches that tissue adhesive for use in vascular surgery may be made

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with Factor XIII, plasminogen activator inhibitor or plasmin inhibitor in order to stimulate wound healing (Column 1 lines 37-44). It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the device of Berenstein with the tissue adhesive of Schwarz in order to promote healing.

7. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Slaikeu et al. '590 in view of U.S. Patent No. 6,526,979 to Nikolchev et al.

Slaikeu discloses the claimed invention except for the vaso-occlusive member being microtextured. Nikolchev discloses that an occlusive member is microtextured in order to promote tissue ingrowth and enhance the occlusion of the vessel (Column 14 lines 9-37). It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the device of Slaikeu with the microtexturing of Nikolchev in order to enhance tissue ingrowth and occlude the vessel.

1. Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,690,666 to Berenstein et al. in view of WO 00/27445 to Boock et al.

Berenstein discloses a vaso-occlusive composition comprising a coil and a particulate liquid embolic material (Column 5 line 66-Column 6 line 9). Berenstein does not disclose an additional bioactive material selected from the group consisting of at least one cytokine, extracellular matrix material, DNA, RNA, functional fragments of DNA and RNA and combinations thereof. Boock teaches that a bioactive material is attached to a vaso-occlusive coil in order to reduce friction, provide a therapeutic for local or blood borne delivery, or enhance thrombosis, coagulation or platelet activity (Page 11 line 17-page 14 line 17). It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the composition of Berenstein with the bioactive material of Berenstein in

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order to reduce friction, provide a therapeutic for local or blood borne delivery, or enhance thrombosis, coagulation or platelet activity.

Response to Arguments

8. Applicant's arguments filed January 13, 2005 have been fully considered but they are not persuasive.

9. Applicant argues that Slaikeu et al. '590 does not meet the claim as amended. Slaikeu meets the limitation, "functional fragments of DNA, RNA, or cytokines" (Column 3 line 63-Column 4 line 5). Therefore, the rejection over Slaikeu et al. '590 is proper.

10. Applicant argues that Schwarz et al. '976 is silent as to tissue adhesives. It is not clear hoe Schwarz is silent with respect to tissue adhesives. The entire invention of Schwarz is a tissue adhesive (see abstract). Applicant appears to have been looking at the wrong reference, since Schwarz does not have a column 5.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jessica R Baxter whose telephone number is 571-272-4691. The examiner can normally be reached on M-F 8:30AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anh Tuan T Nguyen can be reached on 571-272-4963. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jessica R Baxter
Examiner
Art Unit 3731

JRB
JRB

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ANH TUAN T. NGUYEN
SUPERVISORY PATENT EXAMINER
4/4/05